

### Abstract of the Disclosure

An apparatus for detecting dust in a variety of environments which can include radioactive and other hostile environments both in a vacuum and in a pressurized system. The apparatus consists of a grid coupled to a selected bias voltage. The signal generated when dust impacts and shorts out the grid is electrically filtered, and then analyzed by a signal analyzer which is then sent to a counter. For fine grids a correlation can be developed to relate the number of counts observed to the amount of dust which impacts the grid.